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Response and Amendment

Patent Application  
Attorney Docket No.: STI-PAUS0001

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REMARKS

APR 23 2007

Applicant thanks the Examiner for once again acknowledging and approving the drawings filed on March 19, 2004.

Applicant thanks the Examiner for the citations of additional references listed by the Examiner on form PTO-892.

Applicant thanks the Examiner for the in person Examiner Interview with the undersigned on March 30, 2007. A copy of the Interview Summary is included herewith. During the Interview the 35 USC § 112 rejections were discuss and agreement was reached to amend the claims so that the cryocooled temperature would be recited as "an HTS operating temperature" that is supported by the specification, and to amend claim 46 to be like claim 45 so as to include a process step. The amendments herein reflect these agreed upon changes. The undersigned also pointed out that he believed the finality of the Office Action was improper because the limitation of original claims 31-41 were not shown in the originally applied reference, Hershtig, and this should have resulted in the Examiner looking for and finding the Kingswood reference. Also, the Kingswood and Hershtig references are both classified in the same class and subclass, 455/561. In response, the Examiner suggested that we focus on coming to agreement of amendments to obtain patentable claim language. Further, independent claims 1, 18, 31, 42 and 44, as well as some of the dependent claims were discussed in detail along with the teachings of Kingswood and Hershtig, as well as systems related to portable base stations that the Examiner was familiar with. The undersigned and the Examiner came to agreement that the claims would be patentable over all the cited and applied art as well as the portable base stations art that the Examiner was familiar with, by amending the independent

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claims to include various limitations from the dependent claims. Per the Interview discussion, the undersigned prepared a draft of the proposed claim amendments and faxed them to the Examiner on April 17, 2007. The Examiner reviewed the proposed claim amendments and gave his verbal approval on April 20, 2007. This Response and Amendment completely reflect the claims as agreed upon by the Examiner on April 20, 2007. Applicant hereby thanks the Examiner for his cooperation and assistance in the Interview process and review and approval of the proposed claim amendments. Thank you.

Applicant notes for the record that they believe the finality of the presently pending Office Action to be improper for the reasons indicated above. However, Applicant has not petitioned this issue because the Examiner agreed to claim amendments that would make the claims acceptable to him and patentable, placing the present application in condition for allowance.

Claims 1 – 14 and 18-47 are pending and were examined. Claims 15-17 were previously cancelled. By this amendment, Applicant has amended claims 1, 3, 12, 14, 18, 25, 30, 31, 38, 42, and 44-46, to more clearly claim the invention of the subject application. Therefore, Applicant respectfully request examination of presently pending claims 1-14 and 18-47.

In Item 3 of the final Office Action, the Examiner rejected claims 3-5, 12, 25-26, 29, and 30, under 35 USC § 112, first paragraph, as failing to meet the written description requirement. This rejection is respectfully traversed. As mentioned above, claims 3, 12, 25, 29 and 38 have been amended to replace the language “cooled to a temperature equal to or below the maximum upper limit for high temperature superconductors” with “an

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HTS operating temperature" which is supported by the written description of the invention. As noted during the Examiner Interview, it is implicit in the disclosure of the present invention that the cryo-cooling system operates at an HTS operating temperature. Further, the present invention incorporates by reference USPN 6,424,846 that discloses an HTS operating temperature of 77 degrees K. Therefore, based upon the aforementioned and agreement with the Examiner, the Examiner's rejection of claims 3-5, 12, 25-26, 29, and 30, under 35 USC § 112, first paragraph, has been overcome.

In Item 4 of the final Office Action, the Examiner rejected claim 46 under 35 USC § 112, second paragraph, as being indefinite because it was a method or process claim that failed to set out any process steps. This rejection is respectfully traversed. As mentioned above agreement was reached during the Examiner Interview that claim 46 would be amended to be similar to claim 45 to include limitations that are process steps. Applicant has amended claim 46 so that each component is added to the cryo-cooled system module by use of a process step. Therefore, based on the aforementioned and the Examiner's agreement, the Examiner's rejection of claim 46 under 35 USC § 112, second paragraph, is overcome.

In Item 5 of the final Office Action, the Examiner rejected claims 1-2, 18, 31, 40, 45 and 47 under 35 USC § 103(a) as being unpatentable over Kingswood et al. (USPN 6,584,303). This rejection is respectfully traversed. As noted above, claims 1, 18, 31, 42, 44 and 45 have been amended. Further, all of independent claims 1, 18, 31, 42, and 44 have been amended to include limitation from the dependent claims which the Examiner agrees to be patentable. Therefore, for these and the following reasons Applicant respectfully submits that claims 1-2, 18, 31, 40-45 and 47 are patentable over Kingswood.

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Applicant respectfully requests reconsideration and thanks the Examiner for his agreement that these claims as amended above are now patentable for the reasons of adding limitations from claims 3 and 14 into claim 1, adding limitations from claims 25 and 30 into claim 18, adding limitations from claim 38 into claim 31, and adding language related to the housing sizing to claims 42 and 44.

With respect to independent claims 1, 18, 31 and 42, the Examiner relied upon Official Notice for placing the components in a housing, stating that Kingswood did not explicitly disclose a housing. This rejection is respectfully traversed. During the Examiner Interview the undersigned pointed out the need for a reference showing why it would be obvious for one skilled in the art to include a housing to protect the components, and indicated that typically a build was used to place the rack type systems in that are described in Kingswood. Rather than provide a reference showing such a housing, the Examiner noted that one skilled in the art would be familiar with portable base station units and that a rack such as that shown in Kingswood would be placed by one skilled in the art into a mobile base station trailer or container. The undersigned has not personal knowledge or proof of this statement, but has accepted it only for argument sake and has agreeing to amend the claims as requested by the Examiner to include limitations from the dependent claims so as to result in patentable subject matter.

In general, Kingswood is directed to a method and apparatus for automatically identifying a function module in a modular transceiver system and discloses only a rack 11 including a plurality of modules, e.g., TRX1 and TRX2, such that a module, e.g., TRX1 may be removed and replace with a module of a different function, e.g., a booster module 12. The TRX1 and booster module 12 are the same size and thus fit into

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the same size slot. The slot size is fixed and will accommodate only the size of components having a size of the original modules, e.g., TRX1 and TRX2. Kingswood also fails to indicate that there is an excess amount of space in the original rack system or any indication that a housing would be used have excessive capacity for including more and/or larger area of components. Finally, Kingswood, like Hershtig (previously cited) does not disclose the use of HTS components or components for cooling to an HTS operating temperature.

On the hand, with respect to claim 1 of the present application, a receiver front end having a housing that is a single enclosure for housing the receiver front end components, wherein the housing has three dimensions of sufficient size to accommodate at least a portion of the first set of components and all of the additional components added that make up the second set of components, and wherein the second set of components includes one or more cryogenically cooled components that are cooled to an HTS operating temperature(s). These housing size and HTS aspects of the present invention are not disclosed, taught, or suggested by Kingswood, nor would one skilled in the art find them obvious base on Kingswood or based on the knowledge of one skilled in the art (e.g., portable base station). Therefore, the Examiner's rejection of claim 1 based on Kingswood has been overcome.

With respect to claim 2, claim 2 is dependent on claim 1 and is therefore patentable over Kingswood for at least the reasons that claim 1 is patentable over Kingswood.

With respect to claim 18 of the present application, a receiver including one or more high temperature superconductor components that is cooled to an HTS operating

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temperature(s), wherein the housing for the receiver front end is a single housing having at least three dimensions of sufficient size so as to contain at least a portion of the first component and one or more of the second component, and the base station is a component of a wireless communication system is recited. Again the HTS and housing size aspects of the present invention receiver are not disclosed, taught, or suggested by Kingswood, nor would one skilled in the art find them obvious base on Kingswood or based on the knowledge of one skilled in the art (e.g., portable base station). Therefore, the Examiner's rejection of claim 18 based on Kingswood has been overcome.

With respect to claim 31 of the present application, a receiver or transceiver front end including one or more high temperature superconductor components includes at least one high temperature superconductor filter cooled to an HTS operating temperature(s) and the single housing accommodates only the first set of components and the second set of components. Here again, the HTS and housing size aspects of the present invention receiver are not disclosed, taught, or suggested by Kingswood, nor would one skilled in the art find them obvious base on Kingswood or based on the knowledge of one skilled in the art (e.g., portable base station). Therefore, the Examiner's rejection of claim 31 based on Kingswood has been overcome.

With respect to claims 40 and 41, claims 40 and 41 are dependent on claim 31 and are therefore patentable over Kingswood for at least the reasons that claim 31 is patentable over Kingswood. Further, these claims are also patentable over Kingswood for the additional reason that Kingswood fails to disclose, teach or suggest limiting the size of the housing to be approximately equal to or greater than 8064 cubic inches or having two of the three dimensions equal to or greater than 24 inches. To the extent that

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the Examiner uses Official Notice by suggesting these are obvious design choices, this rejection is respectfully traversed. Applicant respectfully request the Examiner to come forward with a reference showing these limitations or to withdraw his rejection of claims 40 and 41.

With respect to claim 42 of the present application, method for upgrading a receiver or transceiver front end having a housing that is a single enclosure for housing the receiver front end components, wherein the housing has three dimensions of sufficient size to accommodate at least a portion of the first set of components and all of the additional components added that make up the second set of components included in the second complete receiver front end system, and wherein the second set of components includes one or more cryogenically cooled components that are cooled to an HTS operating temperature(s). These housing size and HTS aspects of the present invention are not disclosed, taught, or suggested by Kingswood, nor would one skilled in the art find them obvious base on Kingswood or based on the knowledge of one skilled in the art (e.g., portable base station). Therefore, the Examiner's rejection of claim 42 based on Kingswood has been overcome.

With respect to claim 43, claim 43 is dependent on claim 42 and is therefore patentable over Kingswood for at least the reasons that claim 42 is patentable over Kingswood.

With respect to claim 44 of the present application, method for upgrading a receiver or transceiver front end having an enlarged single housing for housing all of the other modules and having an excess area of sufficient size to house all upgrade components, the single housing having three dimensions of sufficient size to

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accommodate at least a portion of the plurality of function modules and all of the additional modules added for upgrading, the plurality of function modules including a duplexer module, an amplifier module including a non-cryocooled low noise amplifier, and a power supply module. These single housing, housing size and functional module aspects of the present invention are not disclosed, taught, or suggested by Kingswood, nor would one skilled in the art find them obvious based on Kingswood or based on the knowledge of one skilled in the art (e.g., portable base station). Therefore, the Examiner's rejection of claim 44 based on Kingswood has been overcome.

With respect to claim 45, claim 45 is dependent on claim 44 and are therefore patentable over Kingswood for at least the reasons that claim 44 is patentable over Kingswood. Further, this claim is also patentable over Kingswood for the additional reason that Kingswood fails to disclose, teach or suggest the additional steps of removing the power supply module, removing the amplifier module, and adding a cryo-cooled system module that cools to an HTS operating temperature(s), wherein at least a portion of the cryo-cooled module is housed within the enlarged housing. None of these steps or the inclusion of cooling to an HTS operating temperature(s) is disclosed, taught, or suggested by Kingswood. To the extent that the Examiner uses Official Notice by suggesting these steps are obvious routine functions to upgrading a system, this rejection is respectfully traversed. There is no showing or support anywhere for the proposition that removing particular components and adding HTS cooled components is obvious to one skilled in the art. Applicant respectfully request the Examiner to come forward with a reference showing these limitations or to withdraw his rejection of claim 45.



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With respect to claim 47, claim 47 is dependent on claim 18 and are therefore patentable over Kingswood for at least the reasons that claim 18 is patentable over Kingswood. Further, this claim is also patentable over Kingswood for the additional reason that Kingswood fails to disclose, teach or suggest that the housing includes two or more other housings integrated into a single housing enclosure that houses all components. None of these limitations are disclosed, taught, or suggested by Kingswood. To the extent that the Examiner uses Official Notice by suggesting that one skilled in the art would integrate different components into one, this rejection is respectfully traversed. There is no showing or support anywhere for the proposition that the housing may be provided in two separate housings that may be combined to form one single housing. Applicant respectfully request the Examiner to come forward with a reference showing these limitations or to withdraw his rejection of claim 47.

In Item 6 of the final Office Action, the Examiner rejected claims 6-11, 13-14, 19-24, 27-28, 30, 32-37 and 39 under 35 USC § 103(a) as being unpatentable over Kingswood in view of Hershtig (USPN 6,212,404). This rejection is respectfully traversed. As noted above, claims 1, 3, 12, 14, 18, 25, 30, 31, 38, 42, and 44-46 have been amended. All of independent claims 1, 18, 31, 42, and 44 have been amended to include limitation from the dependent claims which the Examiner agrees to be patentable. Therefore, for these and the following reasons Applicant respectfully submits that claims 6-11, 13-14, 19-24, 27-28, 30, 32-37 and 39 are patentable over Kingswood in view of Hershtig. Applicant respectfully requests reconsideration and thanks the Examiner for his agreement that these claims as amended above are now patentable for the reasons of adding limitations from claims 3 and 14 into claim 1, adding limitations from claims 25

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and 30 into claim 18, adding limitations from claim 38 into claim 31, and adding language related to the housing sizing to claims 42 and 44. Applicant respectfully requests reconsideration

As an initial matter, Applicant notes that claims 6-11, 13-14, 19-24, 27-28, 30, 32-37 and 39 are dependent either directly or indirectly on independent claims 1, 18, 31, 42, and 44, and are thus patentable over Kingswood for at least the reasons given above. Hershtig fails to make up the deficiencies of Kingswood. First, Applicant strenuously emphasizes that Hershtig does not disclose, teach or suggest anything relative to a housing size or configuration that is used in upgrading from one set of receiver or transceiver components to another and does not disclose, teach or suggest using cryo-cooling to an HTS operating temperature. In fact, Hershtig teaches away from using cryo-cooling to an HTS operating temperature and using HTS components. (See Response and Amendment filed last year in response to the first Office Action, and the comments below.)

The present invention is directed generally to systems and methods for cost effective receiver or transceiver that is easy and cost effective to upgrade. Referring first to Figure 2A, one feature of the present invention is directed towards a front end 103 having a first set of components 200 that includes a housing 204 that is used to house a dual duplexer 201, an amplifier module 202, and a power supply module 208. The power supply module 208 may include a power supply 203 and a panel 205. (See the present invention specification at, for example, paragraph 23.) Having the front end 103 constructed in this manner enables easy and cost effective upgrading to, for example, a

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higher performance front end receiver by removing, for example, the power supply module 208 and the amplifier module 202.

Now referring to Figure 3, an upgraded front end 103 with a second set of components 300 is assembled into the same housing, 204. In this case, the second set of components 300 are at least in part different from the first set of components 200, and may include a dual duplexer 201, a housing 204, and a cryo-cooled system module 308. The cryo-cooled system module 308 may include, for example, a cryogenic cooler 303, a heat sink 304, a control board 305, and a second module mounting panel 306. The system may also include a cry-cooled HTS filter 302 and/or an LNA 301. (See the present invention specification at, for example, paragraph 23.) "As shown by comparing Figure 2 and Figure 3, an upgraded front end 103 may be achieved in this case by removing the amplifier module 202 and power supply module 208 and replacing them with the cryo-cooled system module 308, while utilizing the housing 204 and dual-duplexer from the initial front end system 103 with first set of components 200. This makes for a system that has an easy and cost effective upgrade." (Present specification at paragraph 35 (page 9, lines 21-25).)

Referring again to Figure 2A and Figure 4, another feature of the present invention is directed towards, in various embodiments, upgrading from a front end that does not include a high temperature superconductor (HTS) filter (see, e.g., Figures 2A and 2B), to an upgraded front end that does include an (HTS) filter (see, e.g., Figures 3 and 4). In the case when an HTS filter is included, the cryo-cooling must necessarily be at a low enough temperature that is an operating temperature for high temperature superconductors (HTS).

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As noted above, Kingswood is directed to a method and apparatus for automatically identifying a function module in a modular transceiver system and does not disclose, teach or suggest the various claimed aspects of housing size and/or configuration, nor the use of HTS and cry-cooling to an HTS operating temperature.

Hershtig is directed to providing an alternative wireless system that is converted to include cryo-cooled parts that are cryo-cooled to a temperature that is not as cold as those needed for high temperature superconductor (HTS), i.e., not cooled to an HTS operating temperature, devices and does not include HTS devices. Further, Hershtig does not use the same housing for housing front end components before and after the conversion nor the size and configuration of the housing as claimed in the present invention.

Hershtig does not teach or suggest a system or method of providing a front end (receiver of transceiver) that uses the same housing or a single housing for housing that is of a particular size necessary for housing the components before and after an upgrade; included in (or houses) a first set of components before upgrade and a second set of components that are used for upgrading. To the contrary, the only mention of a housing in Hershtig is with reference to Fig. 21 that states that it is "an exemplary embodiment of the cryogenic refrigeration unit 8 where the heat exchange unit 22 is protected by an outer insulating housing 40." (See Hershtig at col. 12, lines 44-46.) Hershtig fails to disclose, teach or suggest anything about the particular housing or housings that may have been used prior to retrofitting the system to include non-HTS cry-cooled components. Further, there is no mention or suggestion in Hershtig of using the same housing for before and after retrofitting for cryo-cooled components. In fact, the statement that the housing is an

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“insulated housing 40” suggests that the housing 40 is particularly designed to maintain the cold temperatures for the cryo-cooled parts, not conventional parts, and thus housing 40 was not part of the pre-retrofitted system. Typical front end housings without cryo-cooling will tend to be designed to dissipate heat of the internal components rather than being an “insulated housing.”

Further, Hershtig does not teach or suggest including high temperature superconductor (HTS) devices in a front end receiver or transceiver. In fact, Hershtig teaches away from including HTS devices in a front end receiver or transceiver. The Hershtig invention does not use HTS devices. Hershtig states at col. 2, lines 32 – 37, that “as defined in the present patent specification, cryogenic temperatures are those temperatures above the maximum upper limit of current high temperature super conductors.” Further, Hershtig at col. 10, lines 8 – 26 teaches that the cryo-cooling unit that they use is not sufficient to achieve the temperatures necessary to support HTS devices. Hershtig states that “the cryogenic refrigeration unit according to the present invention may produce cooling temperatures above the upper practical limit of current HTS technologies, ... . In general, depending on the particular cryogenic refrigeration unit 8, it is desirable to produce temperatures less than 175 degrees Kelvin and above HTS temperatures. Unlike the HTS temperature ranges (e.g., 77 K), cryogenic temperatures, as defined by the present specification, are easily achievable using low-cost and highly reliable refrigeration equipment. (Hershtig at col. 10, lines 12 – 24.) (See also Hershtig at, for example, col. 11, lines 3 – 5 and col. 13, lines 14 – 32) Finally, Hershtig at col. 14, lines 35 – 61, provides a comparison of their invention with other architecture,

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**including HTS architectures, and referring to their invention states: "Since this module avoid superconductivity, ... ." (Hershtig at col. 14, lines 41-42.) Therefore, it is clear that Hershtig does not teach or suggest using HTS devices, but in fact teaches away from using HTS devices.**

With further respect to claim 6, neither Kingswood nor Hershtig disclose, teach or suggest having a second set of components that includes a cryogenic cooler, a heat sink, and a control board. As admitted by the Examiner, Kingswood does not disclose that the second set of component includes a cryogenic cooler, heat sink and a control board. As previously noted, Hershtig fails to discuss a control board being included in a second set of components at all. Contrary to the Examiner's statement, Applicant respectfully traverses the apparent use of Official notice with regard to including a control board and respectfully requests the Examiner to provide a reference that shows such a system component included in such a unique upgradeable cryo-cooling system. Therefore, claim 6 is further patentable over Kingswood and Hershtig for at least this additional reason.

With respect to claims 7 – 9, and 37, neither Kingswood nor Hershtig also do not disclose, teach or suggest including high temperature superconductor (HTS) devices. There is simply no mention in Kingswood of the use of HTS components in the receiver or transceiver. **Further, Applicant strenuously argues that Hershtig fails to teach or suggest using HTS devices and in fact, as clearly shown above, Hershtig specifically teaches away from including HTS devices.** Therefore, claims 7 – 9, and 37 are further patentable over Kingswood in view of Hershtig for at least this additional reason.

With respect to claims 11 and 28, the Examiner once again appears to take Official Notice that the invention of Kingswood and Hershtig may be altered to include a

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dual duplexer. The Examiner stated that "it would have been obvious and well within the level of a person of ordinary skill in the art at the time the invention was made to incorporate a duplexer ... ." Applicant once again respectfully objects to the use of Official Notice. The examiner may not rely on official notice at the exact point where patentable novelty is argued, but must come forward with pertinent prior art that teaches or suggests the claimed invention. Allegations by the Examiner that certain differences between the claimed subject matter and the cited prior art would have been obvious do not create a presumption of unpatentability. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggests the desirability of the modification. Therefore, the Applicant respectfully requests that the Examiner identify another reference that teaches or suggests a reason for modifying Kingswood and/or Hershtig to include a dual duplexer, as defined by claims 11 and 28.

With respect to claims 14 and 30, the Examiner stated in the Office Action that figure 3 of Kingswood shows a housing that "is inherent that the housing for the receiver front end components, having three dimension of sufficient size to accommodate at least a portion of the first set of components and all of the additional components added to make the second set of components. However, claims 14 and 30 have been amended so as to include additional limitations not shown in either Kingswood or Hershtig. Claims 14 and 30, as amended, now state that the housing for the receiver front end is a single housing only large enough to house receiver front end components including dual duplexers for up to three channels of a cellular telephone base station transmitter. Nothing in either Kingswood or Hershtig disclose, teach or suggest anything about dual

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duplexers of having dual duplexer used to cover up to three channels. Therefore, claims 14 and 30 are further patentable over Kingswood in view of Hershtig for this additional reason.

With respect to claim 20, Applicant respectfully submits that neither Kingswood nor Hershtig disclose, teach or suggest that the second component includes a plurality of components mounted to the housing. As previously noted, Kingswood includes a mounting rack unit and does not disclose anything about a housing. Hershtig fails to show the second component(s) mounted to the housing. Therefore, for this additional reason claim 20 is patentable over Kingswood in view of Hershtig.

Based on the aforementioned, Applicant respectfully submits that claims 6-11, 13-14, 19-24, 27-28, 30, 32-37 and 39 are patentable over Kingswood in view of Hershtig because neither Kingswood nor Hershtig disclose, teach or suggest (nor is it inherent) each and every element of claims 6-11, 13-14, 19-24, 27-28, 30, 32-37 and 39 as amended herein. There is no showing of using the same housing, a single housing, the housing dimensions, multiple housing, as recited by the claims, nor are these aspects inherent or merely a matter of design choice. Further, Hershtig teaches away from using the same or a single housing. Finally, Hershtig teaches away from using temperatures necessary for HTS devices or including HTS devices and Kingswood does not even mention HTS devices or cryo-cooling.

Based on at least the aforementioned reasons, Applicants believe that all claims 1-14 and 18 - 47 are patentable over Kingswood and Kingswood in view of Hershtig.

Applicants respectfully submit that claims 1 - 14 and 18 - 47, all the claims now pending in the present application, are patentable over the cited and applied reference(s).



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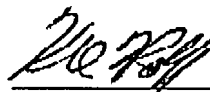
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Therefore, Applicant respectfully request that claims 1 - 14 and 18 - 47 be allowed and the present application be passed to issue at the earliest possible time.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to the charge card identified in the credit card form provided with the filing of the application.

If for any reason the Examiner believes that the present application is not now in condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below, or on my mobile telephone at 703-731-7220, to initially discuss any issues that might be of concern and, if needed, schedule an interview if the application can not be put into condition for allowance by a telephonic interview.

Respectfully submitted,



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Date: April 23, 2007

<b>Interview Summary</b>	Application No.	Applicant(s)	
	10/803,969	TRIPATHI, ASHOK BURTON	
	Examiner	Art Unit	
	Sonny TRINH	2618	

All participants (applicant, applicant's representative, PTO personnel):

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(1) Sonny TRINH.

(3) \_\_\_\_\_

APR 23 2007

(2) Kevin WOLFF.

(4) \_\_\_\_\_

Date of Interview: 30 March 2007.

Type: a) ☐ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☒ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.  
If Yes, brief description: \_\_\_\_\_

Claim(s) discussed: 1, 18, 31, 42, 44

Identification of prior art discussed: KINGWOOD, HERSHTIG

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: ALL INDEPENDENT CLAIMS WILL BE AMENDED TO INCLUDE SOME LIMITATIONS FROM DEPENDENT CLAIMS.  
(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

  
SONNY TRINH  
PRIMARY EXAMINER

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Examiner's signature, if required